ORIGINAL

BEFORE THE

Federal Communications Commission

WASHINGTON, DC 20554

Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	RM-8143

COMMENTS OF BELLSOUTH

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COMMENTS

BellSouth Corporation, BellSouth Telecommunications, Inc., BellSouth Enterprises, Inc., and BellSouth Cellular Corp. (collectively "BellSouth"), by their attorneys, hereby submit comments in response to the Commission's *Notice of Proposed Rule Making*, CC Docket No. 94-102, FCC 94-237 (Oct. 19, 1994), 59 Fed. Reg. 54878 (1994) ("*NPRM*") regarding 911 services.

The *NPRM* proposes the adoption of a variety of rules and deadlines for making 911 services available to customers calling from Private Branch Exchanges ("PBXs") and wireless systems connected to the telephone network. Although BellSouth supports the overall objective of making 911 services accessible to PBX and wireless users, the proposals set forth in the *NPRM* are premature. There is insufficient information available at this time to establish mandates for the provision of 911 services or the dates by which such services must be implemented. Work is underway in a variety of industry groups to address the complex technical and standards issues. The Commission should seek to broaden participation in such fora to include representation of all concerned in an effort to reach a consensus on a timely, efficient, technically feasible, and cost-effective way of providing PBX and wireless customers access to a variety of 911 services.

INTRODUCTION AND SUMMARY

The Commission identifies certain problems that emergency service personnel have in identifying a calling party's location when the calling party is connected to the telephone network through a PBX.[1] To resolve these problems, the Commission proposes rules to require compatibility of PBX equipment with 911 and enhanced 911 ("E-911") systems within 1 year of the effective date of the order adopting rules in this proceeding. 911 and E-911 services are shining examples of how this nation's communications network helps to protect the health and safety of its people and BellSouth fully supports the Commission's goal of a ubiquitous 911 system in the United States. Although extending these services to PBX users will ultimately produce substantial benefits, there are a number of very substantial *cost* and *technical* issues that must be addressed before the scope and timing of extending such services can be considered.

The Commission also proposes to require that mobile radio transmitters utilizing real-time voice services be capable of providing access to 911 emergency services to ensure the broad availability of these services. Specifically, the Commission proposes that, within one year of the effective date of rules adopted in this proceeding, any service-initialized mobile radio handset must have the capability of reaching emergency services by merely dialing 911. Within this same time frame (designated by the Commission as "Phase I"), the Commission also

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[1] As the Commission pointed out in its *NPRM*, PBX systems route calls between telephone stations in an organization and connect these stations to the public switched telephone network ("PSTN") through trunked lines. In addition, a single PBX may serve a number of different buildings. As a result, while emergency service personnel at the Public Service Answering Point ("PSAP") may be able to retrieve the street address of the main building where the PBX (or, more precisely, the PBX trunk line demarcation point) is located, they are often unable to determine the precise location of the calling station within a large building or the calling station when a PBX serves more than one building. Even if they are eventually able to locate the calling station, the process can be complicated and time consuming in a situation where time is critical. *See NPRM* at ¶ 8.

proposes to require that 911 calls be assigned priority over non-emergency calls and that the location of the base station receiving the 911 call be provided to PSAPs. Within four years of Phase I the Commission proposes to require wireless systems to be capable of providing sufficient location information to a PSAP so that a wireless 911 caller can be "located in a 3-dimensional environment within a radius of no more than 125 meters."[2] BellSouth asserts that such requirements are premature. As discussed in more detail below, there are many technical and cost barriers which first must be overcome prior to imposing such requirements.

Accordingly, BellSouth urges the Commission, at this initial stage, to gather information regarding the most efficient method for establishing a universal 911 system, rather than to prematurely impose specific requirements based on the Commission's current vision of such a system. The Commission can then work with all concerned -- PSAPs, telephone companies, wireless carriers, equipment manufacturers, and others -- to analyze the technical obstacles and assess the cost and time involved in reaching an optimal solution to these problems. The final rules will necessarily be based on a careful and reasoned balancing of cost and technical feasibility with the benefits to be achieved.

Thus, BellSouth focuses below on how and when E-911 services, which require specific location information, should be made accessible to PBX users. BellSouth also addresses the difficulty of requiring wireless providers to provide some of the proposed emergency services enhancements per mandated timetables. Finally, BellSouth suggests a number of alternative measures to begin the process of achieving a universal 911 system in this country.

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[2] *Id.* at ¶ 51.

I. PBX Compatibility with Enhanced 911

BellSouth urges the Commission to take a measured approach to resolve the identification problems relating to 911 calls from PBX systems. First, BellSouth urges the Commission to identify the *extent* of the problem before developing any final solution to fix it. A decision to immediately mandate the availability of E-911 services from all PBX station locations will impose enormous costs on network operators, on PBX owners, and, ultimately, on the public.[3] In some cases, these cost increases likely will make PBX services more expensive than traditional telephone service; thus, some customers may forego the benefit of using a PBX if the cost of complying with the FCC's 911 mandate is too great.

Further, it is not necessary to require the availability of E-911 services for all PBX station locations in order to address the location identification problem. Many PBX station locations can be identified on a timely basis by the PSAP without the transmission of detailed calling information. In other words, there are many ways to minimize the technical and economic burdens on network operators, PBX owners and users without diminishing the goal of ensuring broad availability of emergency services to all users of the PSTN.

Any rules mandating forms of access to 911 and E-911 from PBX systems should be narrowly tailored to meet the public's emergency needs and to avoid unnecessary and

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3 While equipment currently exists which allows PBX users to "upgrade" their PBX to provide access to E-911 services, the provisioning of ubiquitous E-911 service involves other critical factors as well, including the local availability of 911 or E-911 service and consultation and cooperation among appropriate governmental bodies and the local 911 communications service provider. Customers buying such upgrades may not be made aware of these other factors by vendors, believing the upgrades will provide immediate E-911 services. This demonstrates that the provisioning of universal emergency services involves coordination and cooperation among numerous entities, and hastily forcing certain technological changes in customer premises equipment ("CPE") will not accomplish the Commission's broader goals.

unreasonable costs that will raise the price of PBX communications services, particularly to small businesses. Moreover, consistent with the standards-setting processes in U.S. telecommunications markets, the Commission should place great reliance, particularly at this early stage, on cooperative efforts by those concerned to develop a reasonable, manageable consensus solution to the problem. Among some of the affected industry groups, these efforts are already underway and are continuing.[4] The Commission should encourage broadening participation in such discussions to include representatives of all interested parties -- not only telephone companies and equipment manufacturers, but also PSAPs and PBX users.

Although the Commission has expressed some concern regarding delays in reaching industry consensus on this matter, BellSouth is confident that the sense of urgency delivered by the Commission in this proceeding will spur the groups involved to act quickly. Accordingly, the Commission should defer action on this matter until such groups have had a reasonable opportunity to achieve consensus on the extent of the problem and the most efficient way to address it.

A. A Mandatory Requirement To Provide ALI Should Not Be Imposed Due to the Substantial Costs Associated Therewith

Many areas in this country still do not have basic 911 services because of the significant cost associated with implementing the services.[5] Further, many areas with basic 911 services do not have E-911 services because of the cost associated with implementing these services.[6] The

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[4] The ANSI T1 Committee (ANSI T1.411 standard regarding the PBX ALI issue) and the National Emergency Number Association's CPE and database committees are examples of these efforts.

[5] *See NPRM* at ¶ 3.

[6] *See id.* at ¶ 39.

cost and technical obstacles involved in extending these services to all PBX users are even more challenging.

A single local exchange carrier ("LEC") may serve as many as 25,000 to 50,000 PBXs. To provide Automatic Location Identification ("ALI") information to PSAPs when 911 calls are made from these PBXs will require (1) customer PBX equipment upgrades to ensure the customers' PBX equipment is capable of adequately identifying the calling extension; (2) the establishment, coordination, and maintenance of ALI databases by the LECs in order to provide current location information for the thousands of calling locations associated with these PBX systems; and (3) the creation of the networks, interfaces, and protocols needed to produce ALI when a 911 call is made. Each LEC would incur substantial costs in loading and maintaining a mandatory ALI database for all of these PBX systems.[7] PBX owners, many of which have PBXs in a single location with a small number of stations, also face significant costs (and liabilities) if the Commission mandates ALI functions for all PBX locations. Therefore, it is important to address as a threshold matter who pays for these costs and to reduce these costs where it is reasonable and appropriate to do so.

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[7] With the implementation of each PBX/ALI system into the E-911 database, BellSouth would be required to meet with each PBX/ALI customer to discuss and verify the street address data being used. The street address data must be recognized by the local serving municipality as being a valid emergency serving address. Once the address is verified, BellSouth would have to coordinate with the customer regarding how to handle edits to the database to ensure that no location errors result. Database entries might have to be changed daily, or even sooner, to handle PBX numbering changes, multiple line appearances, and internal call forwarding. BellSouth's close liaison role with its customers to assist them in setting up their database, transmission procedures, and general trouble shooting is a time consuming and labor intensive process. The existing system architecture which loads and maintains ALI data is not designed to accommodate thousands of PBX customers. Similarly, LECs currently do not have sufficient manpower to dedicate to assisting large numbers of customers with questions regarding ALI addressing and trouble shooting.

If the Commission requires all PBX stations to be captured in the ALI database, a cost structure must be put in place to allow emergency service providers to recover all costs incurred in system upgrades and additional manpower requirements, as all anticipated costs cannot be recovered under the existing state regulatory structure. BellSouth believes that the costs to LECs, PBX owners, and the public will outweigh the benefits if compatibility requirements are imposed on all PBXs. The Commission's overall goal can be met, however, by merely limiting the required PBX stations in the ALI database to those PBXs serving multiple geographic locations or a large number of stations.

BellSouth believes that it is inappropriate at this time to require all PBX vendors to provide their end users with ALI. Mandatory ALI information is costly and presents major technical burdens that, in many cases, are unreasonable.[8] Many of the thousands of PBX locations BellSouth serves have fewer than ten trunks with very few calling stations. Identification of the calling location usually is easy because the end users are contained in one location. Conversely, the cost for preparing, maintaining, and transmitting specific location identification information could equal or exceed the cost of the PBX service itself.[9] Thus, in attempting to afford sufficient flexibility in conforming PBX systems to the needs of their owners, while ensuring that the location of callers to 911 is properly identified to PSAP operators, BellSouth proposes that PBX owners be given the *option* of having ALI information

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[8] For instance, as noted above, emergency personnel could respond effectively to a 911 call from a location within a PBX serving only a small building without any requirement that the PBX have a dedicated E-911 trunk from the building to the E-911 tandem switch.

[9] The Adcomm Petition proposes that a dedicated E-911 trunk be provided from every participating PBX system to the E-911 tandem switch. Since this trunk would be virtually idle except during E-911 calls, this would be a very costly and inefficient means of providing E-911 service, and even the availability of such a trunk would not ensure that accurate ALI would be available.

services. Rather than require ALI information for all calling party locations, BellSouth recommends that PBX owners, in coordination with the LECs who are responsible for loading and maintaining the ALI database, should determine whether additional steps are necessary to ensure that 911 services are available to each location.[10] A PBX owner's discretion would center on factors that would address whether such detailed information is necessary to achieve the goal of ensuring the availability of emergency services on a timely basis.

BellSouth has already taken steps to work on deployment of PBX/ALI in all states within its local operating territory and expects to have it tariffed in all these states during 1995. BellSouth already has tariffed its PBX/ALI offering in Mississippi and has provided this service in other states through special assemblies. BellSouth has learned through these efforts that implementation of PBX/ALI is very time-consuming, because much of the database development, in particular addressing, must be completed by customers with no background in telecommunications or database management.[11] BellSouth is prepared to provide 911 services to any customer (*i.e.*, PBX, wireless, or alternative access provider) that complies with the two BellSouth Technical References which detail the procedures and formats through which ALI data must be provided.

B. A Task Force Comprised of Affected Groups Should Be Formed to Address ALI Database Maintenance

As previously discussed, BellSouth has two publicly available Technical References

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[10] Due to the cost associated with providing ALI, any requirements that are established only should be applied to those PBXs with multiple, or a large number of, station locations.

[11] Despite the Commission's statement that "several states and localities" have required PBX compatibility with 911 systems, BellSouth has been unable to locate any states, other than Mississippi, that have done so. *See NPRM* at ¶ 11 & n.20. Further, Mississippi only requires PBX compatibility for shared tenant service, not for all PBXs.

which should be used in addressing service and equipment compatibility and the provisioning of ALI data. Such compatibility is needed to preserve the integrity of any ALI database. Because other companies may have similar technical references available, a task force comprised of affected groups should be established to avoid conflicts. Similarly, any rules adopted should be flexible to accommodate the many varied requirements of PBX owners. For example, a very large PBX owner may require more frequently scheduled database updates than a small PBX owner; conversely, the small PBX owner may require more technical assistance than the large PBX owner.

C. Requiring that 911 Services be Available to PBX Users Will Have Minimal Impact on the North American Numbering Plan

In response to the Commission's request for comments on the affect of the proposed compatibility requirements on the North American Numbering Plan ("NANP"), BellSouth submits that the proposed requirements would likely have minimal impact on the NANP because nothing in the proposed rules would require an additional direct inward dialing ("DID") number for every PBX station. Any additional DID numbers that will be required as a result of the proposed rules likely will be available in NXX codes already established. Although additional DID numbers may require an additional NXX code to be established sooner than otherwise would be the case, this impact should be minimal on NANP exhaust. There would have to be an enormous concentration of PBXs in a given area before there would be any adverse impact on the NANP.[12]

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[12] BellSouth notes that DID numbers appear to be the most feasible mechanism at this time for providing station number identification and call back capability. The use of alternative identification numbers likely would prove to be too cumbersome and costly and, because they are not true NANP numbers, many changes to network switching and signalling elements would be required.

D. The NENA Standard for 911 Data Should Not be Adopted

In order to provide detailed location information in the most efficient manner, uniform information protocol standards may have to be established. Before such standards can be adopted, however, a committee of affected groups must be created to agree on the appropriate approach. To arbitrarily adopt an information protocol standard at this time would be extremely costly and technically burdensome. BellSouth, for example, has developed a standard data format which it currently uses. If another format were mandated, such as one of the NENA formats developed after the BellSouth format, BellSouth would have to add data fields and additional storage capacity, extend processing time, modify existing software, develop database conversion software, develop software capable of producing historical reports from different data formats, modify training manuals and procedures, convert the existing database, and ensure that all such changes are compatible with the various forms of PSAP equipment. Because of the number of changes that would be involved, a joint committee is the most feasible way of ensuring that the information protocol ultimately adopted is the most efficient and cost effective.

E. PBX Users Should Not Have Direct Access to the 911 Database

The continued validity and integrity of the 911 database should be a principal concern in assessing strategies to expand this database. The 911 database is needed to protect the health and safety of the American public. Thus, data regarding PBX users should be provided to the telephone companies to ensure the accuracy of the information and to preserve the integrity of the database. Allowing multiple users to access a database increases the chance for error, as well as the need for additional interfaces and security measures. Accordingly, BellSouth opposes any proposal that would afford PBX users direct access to the 911 database.

F. Requiring Specific Location Information From Wireless PBXs is Unduly Burdensome

In proposing that E-911 services be available to PBX users, the Commission does not distinguish between traditional and wireless PBX systems. Although there are many technical and cost issues associated with requiring traditional PBX systems to be capable of accessing E-911 services, these issues are even more complex with regard to PBX systems that utilize wireless technology in whole or in part, as is increasingly common. A wireless PBX presents all of the challenges posed by any PBX, but also presents the same difficulties in pinpointing the user's actual location that are faced by wireless systems, as described below, due to the user's mobility.

II. Wireless Compatibility with Enhanced 911

A. All Mobile Radio Services Offering Access to Real-Time Voice Services Should be Required to Provide Access to Enhanced 911 Services.

BellSouth supports the Commission's determination that "all mobile radio services offering access to real-time voice services provided on the public switched network" should be capable of providing access to emergency services.[13] Establishing ubiquitous wireless access to emergency services must be a coordinated effort, however, among numerous affected groups, including wireless service providers, equipment vendors, manufacturers, LECs, PSAPs, *etc.* Wireless users must be informed of the important role they play in the provision of such services; they must properly initialize equipment, subscribe to wireless services, and maintain

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[13] *NPRM* at ¶¶ 37-38. To avoid disputes over the services covered by this definition, however, the Commission should make clear that all "commercial mobile radio services" offering access to real-time voice services must provide access to emergency services. Further, BellSouth submits that 911 services need not - indeed *should* not - be fully accessible by non-voice or non-real-time services, such as paging services.

their equipment to ensure the accurate provision of emergency services. BellSouth urges the Commission to support and facilitate the ongoing technological development, standard setting, and customer education already underway by affected groups.

Numerous technological developments must occur before specific emergency service access requirements can be imposed. Interface standards also must be developed and agreed upon before such requirements are imposed. Establishing time frames for the provision of certain 911 features would be premature at this time and would require affected groups to develop interim solutions which actually could delay the long term deployment and increase the cost of more advanced features. Additionally, the development of interim solutions to meet such premature timetables likely will result in costly "throw-away" technology, diverting resources away from reaching the long term goal of providing reliable and high quality user information to improve emergency call response.

A great deal of work has already been done by affected groups attempting to develop the most efficient means for accessing 911 services. As the Commission has recognized, PCIA, APCO, NENA, and NASNA have already developed a position paper to assist in the development of standards for the implementation of wireless access to emergency services. Additionally, a recent PCIA/JEM report reflects additional progress by these and other groups.[14] Much more needs to be accomplished, however, before specific meaningful requirements and

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[14] *See, e.g.*, "Wireless Support of 9-1-1 and Enhanced 9-1-1 Emergency Services," JEM/PCIA Report, released Oct. 11, 1994. This effort was sponsored by the Association of Public Safety Communications Officials International, Inc. (APCO), National Association of State Nine-One-One Administrators (NASNA), National Emergency Number Association (NENA), Personal Communications Industry Association (PCIA), Telecommunications Industry Association (TIA), and T1P1. Representatives from public safety organizations, U.S. standards organizations, U.S. trade industry associations, North American service providers, and manufacturing interests also participated.

time tables can be established. To date, work has been led by PCIA, CTIA, and joint technical committees, but a comprehensive group of all affected interests, including manufacturers, vendors, the emergency services community, and LECs, must be formed before the goal of providing ubiquitous wireless emergency services can be realized.

B. Any CMRS User Should be Able to Reach 911 Services From a Service-Initialized Mobile Radio Handset

BellSouth agrees with the Commission's ultimate objective that all CMRS users should "have the ability to reach emergency services from any service initialized mobile radio handset."[15] Once a user has subscribed to a CMRS service, the subscriber should be able to reach 911 services in both the home area and subscribed to "roaming" areas where wireless service is available *and* where 911 services are available via wireline facilities. In this regard, BellSouth's efforts to ensure access to emergency services have resulted in the availability of such services to subscribers and roamers in approximately 95% of the geographic area served by BellSouth cellular systems. Of course, with any wireless system, a subscriber will not be able to make a 911 call outside established service areas, within a dead spot, or in areas where wireline 911 service is not available. Further, enhancements may be needed in order to provide wireless access to emergency services in certain instances, such as when a mobile phone is "locked."[16] BellSouth also notes that although an identity module may be used by certain mobile stations capable of initiating 911 calls (even without the identity module), full E-911 services may not be available via the identity module.

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15 *NPRM* at ¶ 41 (footnotes omitted).

16 If enhancements are required, the Commission should not require existing equipment to be retrofitted as it would prove too costly. BellSouth notes, however, that many cellular telephones today have been designed to permit 911 calls when electronically locked.

The Commission should make clear that a wireless provider's only obligation with regard to 911 services is to make sure that its system is compatible with, and provides access to, 911 services that are otherwise accessible to wireline customers in the geographic area where a user is located. The Commission has not proposed to require CMRS operators to *provide* 911 services, where such services are not otherwise available.

C. Mandating a Particular Grade of Service for 911 Calls is not Warranted

As wireless systems provide access to 911 services through multiple links,[17] the grade of service for a wireless 911 call will depend on the grade of service over each link. The Commission has recognized that "any overall grade of service objective will require a cooperative effort between the initiating, interconnecting, and terminating systems."[18] Accordingly, it is not the wireless provider alone who controls the grade of service. To effectuate any change in the grade of service, interconnection arrangements may have to be altered and the PSTN may have to be changed. Thus, BellSouth supports the Commission's tentative conclusion that federal grade of service standards are not warranted at this time.[19]

D. Requiring Detailed Location Information be Provided to PSAPs by a Date Certain is Premature

Although landline telephone systems have been implementing basic 911 services since the 1970s, more than 10 percent of the local exchange access lines in the United States are not

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17 *I.e.*, subscriber-cell site; cell site-MTSO; MTSO-LEC; LEC-PSAP.

18 *NPRM* at ¶ 43.

19 *Id.*

served by any form of 911.[20] Despite this fact, the Commission proposes to require wireless licensees to modify their systems within one year to (1) ensure that a 911 call can be made from a service-initialized mobile unit, (2) provide 911 calls with priority over non-emergency calls, and (3) provide certain location data. Further, the Commission proposes to require wireless systems, within five years, to be able to locate a mobile station in a 3-dimensional environment within a radius of not more than 125 meters.[21] Although BellSouth applauds the Commission for seeking to ensure universal 911 availability, the proposed timetables do not appear to contemplate the substantial technical challenges and implementation issues involved.

Before high quality location information can be provided to satisfy the requirements of routing to the appropriate PSAP and timely response, a number of advances must be made in wireless systems, interconnected telephony networks, and PSAPs. Examples include:

- Selection of a location technology that can be deployed across diverse wireless systems such as 800 MHz cellular, enhanced specialized mobile radio, and 1.8 GHz PCS. Such technology must operate with a range of air interface methods, must provide consistent location accuracy commensurate with the expectations of the PSAP, and must meet certain cost goals. Today, no location technology has passed these hurdles and most proposed technologies are in their infancy with regard to commercially viable deployment.[22]

- The ability to pass the location information to the existing interconnected networks for the purposes of routing and information retrieval must be developed once a particular location technology is chosen. Many systems currently providing 911 services cannot accommodate new information elements. Many

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20 *Id.* at ¶ 3. Further, more than one-quarter of landline customers in the United States do not have access to E-911. *Id.* at ¶ 39.

21 *Id.* at ¶ 51.

22 Although the Driscoll survey referenced by the Commission (*NPRM* at ¶ 47) may have valid usefulness in certain applications, none of the eighteen location technologies identified by the study have been deployed commercially for providing *wireless emergency services location information* and many of these technologies still are in the developmental stages.

systems will require the deployment of extensive modifications; others will require new equipment designed to meet new standards.

- All industries (wireless, telephony, public safety, *etc.*) will need to develop extensive verification procedures to ensure that the location information can be provided in an end-to-end unified manner across the diverse telecommunications networks that exist today and will be viable tomorrow.

- Manufacturers must commit to develop the needed technologies and all affected entities must implement the requisite changes. Massive system conversions can take years to accomplish.

Until affected groups have had an opportunity to form a consensus on how to best address these and other issues relating to the provisioning of location information, it is pointless to set timetables for implementation of specific features.

Potentially two needs are met by requiring wireless systems to provide location information regarding wireless 911 callers to PSAPs: PSAP routing and timely response. The ultimate goal of such a requirement should be the provision of the best possible location technology as expeditiously as possible. The Commission's three phase mandate does not support this goal. Although it may be possible to meet the requirements of the first phase within one or two years, compliance with the second and third phases do not appear possible, given the current state of technology and the amount of work that remains regarding standards and interfaces. Affected groups have made progress on these matters, but a great deal more must be accomplished before specific requirements and meaningful time frames can be established.

While this work continues, BellSouth recommends that the Commission adopt a flexible approach that requires wireless systems to be capable of routing 911 calls to the appropriate PSAP within 2 years.[23] BellSouth believes that the 2 year timetable for PSAP routing can be met

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[23] BellSouth emphasizes that radio boundaries and PSAP boundaries do not necessarily coincide and, until technology advances, routing of calls must be based on the location of the cell site and not the location of the mobile unit. Once technology permits more

by using pseudo-ANI,[24] with which many wireless systems now are experimenting. At the end of this 2 year period, wireless systems must be capable of only routing 911 calls to the appropriate PSAP based on the location of the cell site, or sector of the cell site, rather than the mobile unit.[25] Although PSAPs still will be required to get specific location data from the caller at the conclusion of the first phase, basic 911 services and general location information will be available.

Once a consensus has been reached by affected groups on how to best provide location data, the Commission should issue a notice of proposed rule making setting forth the proposed rules and implementation schedule. Attempting to accomplish these steps in the current rule making places the cart before the horse.

E. The Commission Should Adopt a Flexible Approach to the Implementation of Re-ring/Call Back Emergency Service Capabilities

The Commission proposes to require that "within three years of the effective date of the order adopting the rules in this proceeding, wireless systems must provide PSAP attendants with the capability to call back the 911 caller if the call is disconnected."[26] Numerous technical obstacles exist, however, for implementing the capability to immediately return calls placed from mobile radio handsets to a 911 emergency number. Issues which need to be addressed include:

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detailed location information, negotiations with PSAPs will be required to ensure appropriate routing.

24 Pseudo-ANI is a telephone number surrogate that identifies, for example, a particular cell or sector.

25 In many cases today, 911 calls are delivered to a single law enforcement agency without reference to the cell site location.

26 *NPRM* at ¶ 52.

- The number of digits of a telephone number that a PSAP can handle today, versus the number of digits that will be required for call back capabilities in the future.

- Development of new interfaces between wireless systems and PSAPs to allow for more direct call back into the system handling the call, versus a call back to the mobile caller's home system.

- Development of capabilities to override subscriber enabled features such as call transfer, voice mail, automated answering, *etc.* These issues are not unique to wireless and impact call backs to landline telephones.

The same approach outlined in the previous section to ensure implementation of location information, *i.e.*, the establishment of flexible goals while permitting the continuance of industry-wide developmental efforts, also should be used to develop standards and drive the implementation of these aspects of emergency services. The timing of the implementation of re-ring/call back emergency services should be dependent upon their relative priority to other capabilities and the extent to which they can be integrated with other initiatives, such as ANI and wireless SS7.

F. Many Issues Must Be Resolved Before Rules Regarding 911 Call Priority Are Adopted

The Commission proposes to require wireless systems to assign 911 calls a priority over non-emergency calls.[27] Although the Commission suggests that this may be accomplished by placing 911 calls at the beginning of any queue for calls waiting to be placed over the wireless system, BellSouth notes that most wireless systems are not capable of supporting queuing. Further, queuing 911 calls could delay other non-911 emergency calls, such as calls to poison control centers and suicide hotlines and calls placed by disaster relief crews and other emergency personnel. Additionally, to achieve call priority, changes may have to be made to the handset,

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[27] *Id.* at ¶ 44.

wireless system, LEC, and PSAP.[28] Thus, before mandating 911 call priority, via queuing or any other means, the Commission should allow representatives of all affected groups to study the issue to determine the best method for achieving call priority and what other call priorities must be considered, such as emergency preparedness and national security plans. Mandating call priority at a date certain, before affected groups can determine the best method, would be unwise and would not effectively accomplish the Commission's objective.

III. Other Policy Issues

The Commission raises additional considerations in the *NPRM*, including privacy issues, preemption, and cost considerations. With respect to privacy, the Commission seeks comment on the need for imposing privacy requirements on the information transmitted to the LECs and PSAPs as a result of callers using 911 emergency services.[29] The Commission further requests comment on whether there is a privacy interest in the information transmitted by wireless service providers over the 911 system, and if so, what measures should be taken to protect that interest.[30] BellSouth agrees with the position taken by the Commission that special measures are not necessary to protect privacy in the information delivered in the provision of emergency services.

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[28] For example, this is not addressed in the Commission's analog cellular compatibility specification, OET-53. Contending radio channel access attempts are resolved by retrying after random delays, rather than on the basis of priority for particular classes of calls.

[29] *NPRM* at ¶ 56. The Commission noted that while it has not imposed such requirements for calling number identification services in circumstances where serious privacy considerations are not raised, including calls to emergency service providers, the states have adopted various approaches with respect to privacy requirements when information is used in the delivery of emergency services. *Id.* at ¶¶ 56, 57.

[30] *Id.* at ¶ 57.

Additionally, BellSouth urges the Commission to protect wireless and wireline carriers from liability for the information provided to emergency systems. Such protection should extend to potential maintenance errors in the ALI database, as well as to the required transmission of information regarding the caller in the course of providing emergency service.

The *NPRM* also seeks comment on the issue of preempting state regulations which may affect the compatibility of PBX equipment and wireless services with E-911 systems.[31] In an effort to impose uniform requirements, the Commission specifically seeks comment regarding any potential conflicts between the proposed rules and state regulation affecting PBX or wireless services, and requests that commenters provide specific alternatives for ensuring that the nationwide goal of compatibility with the E-911 system is achieved.[32] BellSouth agrees with the Commission that state laws mandating specific capabilities and time frames for wireless provision of E-911 services should be preempted. Once a consensus regarding technical standards is achieved with respect to the compatibility of PBX and wireless equipment with E-911 systems, uniform federal rules adopting such technical requirements should be implemented to ensure nationwide compatibility, particularly in cases of roaming situations between neighboring wireless markets. A uniform approach will prevent states from mandating different and conflicting requirements, which could significantly delay service, create customer confusion, and result in unnecessary costs.

The Commission also requests analysis of the cost considerations and economic feasibility of implementing the proposed rules.[33] BellSouth believes that wireless providers will

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31 *Id.* at ¶ 59.

32 *Id.*

33 *Id.* at ¶¶ 21, 38, 60.

incur substantial costs in achieving compatibility with the E-911 system. It is too early, however, to assess these costs because of the many technical issues that must be resolved. With industry consensus, however, costs will certainly be less than if multiple independent efforts are undertaken due to economies of scale and coordinated implementation. Once initial decisions on capabilities, time frames, and the roles of the participants in the provision of emergency services are made, BellSouth believes that the Commission should initiate a separate rulemaking proceeding to address how the costs of providing 911 service can be recovered.

CONCLUSION

For the forgoing reasons, BellSouth urges the Commission to forego the adoption of mandatory 911 and E-911 requirements for PBX and wireless systems until an industry consensus can be reached regarding how best to provide access to these services.

Respectfully submitted,

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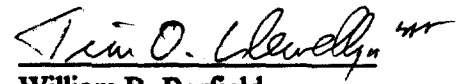
By: 

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